

Exposé plénier

8 *The arithmetic of power series*

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In this talk, we will discuss various irrationality and linear independence problems including the irrationality of 2-adic zeta value at 5. The proofs use an arithmetic holonomicity theorem for power series with rational coefficients, the special case of which was used in the proof of the unbounded denominators conjecture in joint work with Calegari and Dimitrov; arithmetic holonomicity theorems have also been studied in recent work of Bost and Charles. This is joint work in progress with Frank Calegari and Vesselin Dimitrov.